

1. IDENTIFICATION

Product Name	Sodium Hydrosulphite
Other Names	Dithionous Acid, disodium salt; Sodium Dithionite; Sodium sulfoxylate
Uses	Whitening agent for industrial use.
Chemical Family	No Data Available
Chemical Formula	H ₂ O ₄ S ₂ .2Na
Chemical Name	Sodium Hydrosulphite
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details


For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) No Data Available

Globally Harmonised System

Hazard Classification	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)	
Hazard Categories	Self-heating Substances and Mixtures - Category 1 Acute Toxicity (Oral) - Category 4 Serious Eye Damage/Irritation - Category 2A	
Pictograms		
Signal Word	Danger	
Hazard Statements	EUH031	Contact with acids liberates toxic gas.
	H251	Self-heating; may catch fire.
	H302	Harmful if swallowed.
	H319	Causes serious eye irritation.
Precautionary Statements	Prevention	P235 + P410 Keep cool. Protect from sunlight. P280 Wear eye protection/face protection.
	Response	P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Storage	P420 Store away from other materials.
	Disposal	P501 Dispose of contents/container in accordance with local / regional / national / international regulations.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications	Physical Hazards	4.2B	Spontaneously combustible substances: self-heating substances: medium hazard
	Health Hazards	6.1D	Substances that are acutely toxic - Harmful
		6.4A	Substances that are irritating to the eye
	Environmental Hazards	9.1C	Substances that are harmful in the aquatic environment
		9.1D	Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action
		9.3C	Substances that are harmful to terrestrial vertebrates

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sodium hydrosulphite	No Data Available	7775-14-6	>=90 %
Sodium carbonate	No Data Available	497-19-8	>=3 - <5 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	Rinse mouth with water. Give plenty of water to drink provided person is conscious. Do NOT induce vomiting. Seek immediate medical attention.
Eye	Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Take care not to rinse contaminated water into the non-affected eye. Seek immediate medical attention.
Skin	Remove contaminated clothing. Wash affected area with plenty of Soap and water for at least 15 minutes. Seek immediate medical attention. Wash clothing before reuse.
Inhaled	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient.
Medical Conditions Aggravated by Exposure	No information available on medical conditions aggravated by exposure to this product.

5. FIRE FIGHTING MEASURES

General Measures	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT move cargo if cargo has been exposed to heat.
Flammability Conditions	Substance liable to spontaneous combustion. Flammable solid. Heats spontaneously in contact with air, especially moist air, and may ignite surrounding combustible materials.
Extinguishing Media	Use dry sand or earth to smother fire. If water is the only media available, use in flooding amounts. Use water spray to keep fire-exposed containers cool. Use water with caution and in flooding amounts.
Fire and Explosion Hazard	May decompose explosively when heated or involved in a fire.
Hazardous Products of Combustion	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. These may include carbon monoxide, oxides of sulfur, carbon dioxide.
Special Fire Fighting Instructions	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store contaminated fire fighting media for treatment.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	>100 °C
Hazchem Code	1S

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Use clean, non-sparking tools and equipment. All equipment used when handling the product must be grounded.
Clean Up Procedures	Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labelled container and dispose of promptly as hazardous waste. Move container from spill area. Place under an inert atmosphere. Do not get water inside containers. Control runoff and isolate discharged material for proper disposal.
Containment	Stop leak if safe to do so. Isolate the danger area.

Environmental Precautionary Measures	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.
Evacuation Criteria	Evacuate all unnecessary personnel.
Personal Precautionary Measures	Personnel involved in the clean up should wear full protective clothing as listed in section 8. Air-supplied masks are recommended to avoid inhalation of toxic material.

7. HANDLING AND STORAGE

Handling	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Do not inhale product vapours. Avoid ingestion and inhalation. Use only in a well-ventilated area. Minimize dust generation and accumulation. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Handle under an inert atmosphere. Do not allow contact with water. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep from contact with moist air and steam.
Storage	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight. Keep away from food, drink and feed. Incompatible materials: Keep away from water or from damp surroundings. Keep away from acids. This product has a UN Classification of 1384 and a Dangerous Goods Class 4.2 (Flammable Solid) according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
Container	Container type/package must comply with all applicable local legislation. Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No exposure standard has been established for this product by the Safe Work Australia (SWA). However, the exposure standard for dust not otherwise specified is 10mg/m ³ (for inspirable dust) and 3mg/m ³ (for respirable dust). NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
Exposure Limits	No Data Available
Biological Limits	No information available on biological limit values for this product.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Use explosion-proof ventilation.
Personal Protection Equipment	RESPIRATOR: Filtering Half-face mask (DIN EN 149) (AS1715/1716). EYES: Wear appropriate protective eyeglasses or chemical safety goggles (AS1336/1337). HANDS: Wear appropriate protective gloves (AS2161). CLOTHING: Long-sleeved protective coveralls and safety footwear (AS3765/2210).
Work Hygienic Practices	No Data Available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Crystalline Powder
Odour	None
Colour	White
pH	7.5 - 10 1%
Vapour Pressure	No Data Available
Relative Vapour Density	2.3

Boiling Point	No Data Available
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	19.1 %
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	>100 °C
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	>90 °C
Density	0.8 - 1.1
Specific Heat	No Data Available
Molecular Weight	174.10 g/mol
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No Data Available
Potential for Dust Explosion	No Data Available
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute to Fire Intensity	No Data Available
Reactions That Release Gases or Vapours	No Data Available
Release of Invisible Flammable Vapours and Gases	No Data Available

10. STABILITY AND REACTIVITY

General Information	Flammable Solid.
Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	Avoid ignition sources, dust generation, exposure to air, excess heat, moisture, high humidity.
Materials to Avoid	Sodium nitrite, sodium nitrate, ammonium nitrate, sodium peroxide, sodium chlorate, hydrogen peroxide
Hazardous Decomposition Products	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. These may include carbon monoxide, oxides of sulfur, carbon dioxide.
Hazardous Polymerisation	Hazardous Polymerisation has not been reported.

11. TOXICOLOGICAL INFORMATION

General Information	Toxicological information of the main substances found in the mixture: sodium dithionite; sodium hydrosulphite - CAS: 7775-14-6 a) acute toxicity: Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg Test: LC50 - Route: Inhalation - Species: Rat > 5.5 mg/l - Duration: 4h Test: LD50 - Route: Oral - Species: Rat = 2500 mg/kg sodium carbonate - CAS: 497-19-8 a) acute toxicity: Test: LD50 - Route: Oral - Species: Rat = 2800 mg/kg Test: LC50 - Route: Inhalation - Species: Mouse = 1.2 mg/l - Duration: 2h Test: LC50 - Route: Inhalation - Species: Rat = 2.3 mg/l - Duration: 2h Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
Ingestion	May cause nausea, vomiting, abdominal pain, and increased salivation. Harmful if swallowed.
Carcinogen Category	No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic acute toxicity: Endpoint: LC50 - Species: Fish = 62.3 mg/l - Duration h: 96 Endpoint: EC50 - Species: Algae = 206.2 mg/l - Duration h: 72 Endpoint: EC50 - Species: Daphnia = 98.3 mg/l - Duration h: 48 sodium carbonate - CAS: 497-19-8 a) Aquatic acute toxicity: Endpoint: LC50 - Species: Fish = 300 mg/l - Duration h: 96 Endpoint: EC50 - Species: Crustaceans = 200-227 mg/l - Duration h: 48
Persistence/Degradability	Not available
Mobility	No information available on mobility for this product.
Environmental Fate	Do NOT let product reach waterways, drains and sewers.
Bioaccumulation Potential	No information available on bioaccumulation for this product.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
Special Precautions for Land Fill	Contact a specialist disposal company or the local waste regulator for advice.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	SODIUM DITHIONITE (SODIUM HYDROSULPHITE)
Class	4.2 Flammable Solids - Substances liable to spontaneous combustion
Subsidiary Risk(s)	No Data Available
EPG	25 Spontaneously Combustible Substances (Air And/Or Water Reactive)
UN Number	1384
Hazchem	1S

Pack Group II
Special Provision No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name SODIUM DITHIONITE (SODIUM HYDROSULPHITE)
Class 4.2 Flammable Solids - Substances liable to spontaneous combustion
Subsidiary Risk(s) No Data Available
EPG 25 Spontaneously Combustible Substances (Air And/Or Water Reactive)
UN Number 1384
Hazchem 1S
Pack Group II
Special Provision No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name SODIUM DITHIONITE (SODIUM HYDROSULPHITE)
Class 4.2 Flammable Solids - Substances liable to spontaneous combustion
Subsidiary Risk(s) No Data Available
ERG 135 Substances - Spontaneously Combustible
UN Number 1384
Hazchem 1S
Pack Group II
Special Provision No Data Available

Sea Transport

IMDG Code

Proper Shipping Name SODIUM DITHIONITE (SODIUM HYDROSULPHITE)
Class 4.2 Flammable Solids - Substances liable to spontaneous combustion
Subsidiary Risk(s) No Data Available
UN Number 1384
Hazchem 1S
Pack Group II
Special Provision No Data Available
EMS FA,SJ
Marine Pollutant No

Air Transport

IATA DGR

Proper Shipping Name SODIUM DITHIONITE (SODIUM HYDROSULPHITE)
Class 4.2 Flammable Solids - Substances liable to spontaneous combustion
Subsidiary Risk(s) No Data Available
UN Number 1384
Hazchem 1S
Pack Group II
Special Provision No Data Available

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification

Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information No Data Available
Poisons Schedule (Aust) No Data Available

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR001295

National/Regional Inventories

Australia (AICS)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	Not Determined
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Not Determined
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION

Related Product Codes SOHYSU1000, SOHYSU1001, SOHYSU1002, SOHYSU1003, SOHYSU1004, SOHYSU1005, SOHYSU1006, SOHYSU1007, SOHYSU1008, SOHYSU1009, SOHYSU1010, SOHYSU1011, SOHYSU1012, SOHYSU1013, SOHYSU1014, SOHYSU1015, SOHYSU1016, SOHYSU1017, SOHYSU1018, SOHYSU1019, SOHYSU1020, SOHYSU1021, SOHYSU1022, SOHYSU1023, SOHYSU1024, SOHYSU1025, SOHYSU1026, SOHYSU1027, SOHYSU1028, SOHYSU1029, SOHYSU1100, SOHYSU1200, SOHYSU1400, SOHYSU1800, SOHYSU1801, SOHYSU1802, SOHYSU1803, SOHYSU1804, SOHYSU1805, SOHYSU1806, SOHYSU1807, SOHYSU1808, SOHYSU1809, SOHYSU1810, SOHYSU1811, SOHYSU1812, SOHYSU1813, SOHYSU1816, SOHYSU1877, SOHYSU2000, SOHYSU2001, SOHYSU2500, SOHYSU2700, SOHYSU3000, SOHYSU3200, SOHYSU3201, SOHYSU3202, SOHYSU3203, SOHYSU3204, SOHYSU3205, SOHYSU3206, SOHYSU3207, SOHYSU3208,

SOHYSU3209, SOHYSU3210, SOHYSU3211, SOHYSU3212, SOHYSU3213, SOHYSU3214, SOHYSU3215, SOHYSU3216, SOHYSU3217, SOHYSU3218, SOHYSU3219, SOHYSU3220, SOHYSU3221, SOHYSU3500, SOHYSU3501, SOHYSU3502, SOHYSU3600, SOHYSU3700, SOHYSU3800, SOHYSU4000, SOHYSU4001, SOHYSU4002, SOHYSU4003, SOHYSU4004, SOHYSU4200, SOHYSU4500, SOHYSU5000, SOHYSU5001, SOHYSU5002, SOHYSU5100, SOHYSU5500, SOHYSU6000, SOHYSU6001, SOHYSU6100, SOHYSU6200, SOHYSU6300, SOHYSU6400, SOHYSU6500, SOHYSU6600, SOHYSU6700, SOHYSU7000, SOHYSU7100, SOHYSU7101, SOHYSU7102, SOHYSU7103, SOHYSU7200, SOHYSU7300, SOHYSU7500, SOHYSU7700, SOHYSU7701, SOHYSU8000, SOHYSU8300, SOHYSU8500, SOHYSU8501, SOHYSU8600, SOHYSU8800, SOHYSU8900, SOHYSU9000, SOHYSU9001, SOHYSU9100, SOHYSU9200

Revision

3

Revision Date

05 Dec 2014

Key/Legend

< Less Than

> Greater Than

AICS Australian Inventory of Chemical Substances

atm Atmosphere

CAS Chemical Abstracts Service (Registry Number)

cm² Square Centimetres

CO₂ Carbon Dioxide

COD Chemical Oxygen Demand

deg C (°C) Degrees Celcius

EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Farenheit

g Grams

g/cm³ Grams per Cubic Centimetre

g/l Grams per Litre

HSNO Hazardous Substance and New Organism

IDLH Immediately Dangerous to Life and Health

immiscible Liquids are insoluable in each other.

inHg Inch of Mercury

inH₂O Inch of Water

K Kelvin

kg Kilogram

kg/m³ Kilograms per Cubic Metre

lb Pound

LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

ltr or **L** Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH₂O Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Health and Safety Commission

OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours

ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

R Rankine

RCP Reciprocal Calculation Procedure

STEL Short Term Exposure Limit

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight

